

## PATENT COOPERATION TREATY

**PCT**INTERNATIONAL SEARCH REPORT  
(PCT Article 18 and Rules 43 and 44)

|   |  |  |
|---|--|--|
| Applicant's or agent's file reference<br>010941-0003      | FOR FURTHER<br>ACTION  | see Form PCT/ISA/220<br>as well as, where applicable, item 5 below       |
| International application No.<br><b>PCT/CA2004/002147</b> | International filing date ( <i>day/month/year</i> )<br>16 December 2004 (16-12-2004) | Priority date ( <i>day/month/year</i> )<br>17 December 2003 (17-12-2003) |
| Applicant<br>FERMAG INC. ET AL                            |  |  |

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (see Box No. II).

3. ☐ **Unity of invention is lacking** (see Box No. III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows :

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☒ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/002147

## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: C09C 1/22, C22B 7/02, C09C 1/00, C09C 3/00, C22B 3/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: C09C 1/22, C22B 7/02, C09C 1/00, C09C 3/00, C22B 3/04CPC: 6/194, 6/210, 53/140, 53/155, 53/256, 53/260-53/270, 53/288, 53/305, 53/326, 53/354, 53/370,  
117/47.4-117/48.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms)

Delphion, USPTO, Qpat, Canadian Patents Database, Google

- by keyword: "EAF", "steelmill", "pigment", "ferrite", "magnetite"
- by applicant
- by inventor

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant   | Relevant to claim No(s). |
|-----------|---|--------------------------|
| X<br>Y    | JEBRAK MICHEL, MAURICE MORENCY and DENISE FONTAINE:<br>"Caracterisation et technologie de traitement des poussières d'acierage a<br>Sorel -Tracy", Quebec Department of the Environment - St. Lawrence<br>Centre, Environment Canada,<br>March 1993 (03-1993)<br>*chapters 8 and 9* | 1-21<br>22               |
| X         | CA 1184363 A (BAYER AKTIENGESSELLSCHAFT)<br>26 March 1985 (26-03-1985)<br>*claims 1-3*  | 23-26; 30                |

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

- \* Special categories of cited documents :
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T"

"X"

"Y"

"&amp;"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

document member of the same patent family

Date of the actual completion of the international search

16 March 2005 (16-03-2005)

Date of mailing of the international search report

07 April 2005 (07-04-2005)

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/002147

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                           | Relevant to claim No(s). |
|-----------|--|--------------------------|
| X         | CA 1331274 C (BAYER AKTIENGESELLSCHAFT)<br>09 August 1994 (09-08-1994)<br>*page 1, lines 10-15*              | 27, 28, 31               |
| X         | CA 1186885 A (BAYER AKTIENGESELLSCHAFT)<br>14 May 1985 (14-05-1985)<br>*page 9, line 34 to page 10, line 13* | 27, 28, 31               |
| Y         | *page 3, lines 18-20*<br>*page 4, lines 25-26*<br>*page 8, lines 21-31*                                      | 22                       |
| A         | CA 2228562 A1 (RECUPAC)<br>20 February 1997 (20-02-1997)<br>*cited by Applicant*<br>*whole document*         | 1-28, 30, 31             |
| A         | CA 2400854 A1 (RECUPAC)<br>30 August 2001 (30-08-2001)<br>*whole document*                                   | 1-28, 30, 31             |

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/CA2004/002147

| Patent Document<br>Cited in Search Report | Publication<br>Date | Patent Family<br>Member(s) | Publication<br>Date |
|---|---------------------|----------------------------|---------------------|
| CA1184363                                 | 26-03-1985          | AU557226 B2                | 11-12-1986          |
|   |                     | AU8830382 A                | 24-03-1983          |
|   |                     | BR8205326 A                | 23-08-1983          |
|   |                     | CA1184363 A1               | 26-03-1985          |
|   |                     | DE3136279 A1               | 24-03-1983          |
|   |                     | DE3262883D D1              | 09-05-1985          |
|   |                     | EP0074563 A2               | 23-03-1983          |
|   |                     | JP1685604C C               | 11-08-1992          |
|   |                     | US4443264 A                | 17-04-1984          |
| CA1331274                                 | 09-08-1994          | AU617186 B2                | 21-11-1991          |
|   |                     | AU3644489 A                | 04-01-1990          |
|   |                     | BR8903066 A                | 06-02-1990          |
|   |                     | CA1331274 C                | 09-08-1994          |
|   |                     | DE3821341 A1               | 28-12-1989          |
|   |                     | DE58902448D D1             | 19-11-1992          |
|   |                     | EP0347681 A2               | 27-12-1989          |
|   |                     | JP1927798C C               | 25-04-1995          |
|   |                     | US5055136 A                | 08-10-1991          |
| CA1186885                                 | 14-05-1985          | AU553385 B2                | 10-07-1986          |
|   |                     | AU1172883 A                | 29-09-1983          |
|   |                     | BR8301572 A                | 06-12-1983          |
|   |                     | CA1186885 A1               | 14-05-1985          |
|   |                     | DE3211327 A1               | 29-09-1983          |
|   |                     | DE3360295D D1              | 25-07-1985          |
|   |                     | EP0090241 A1               | 05-10-1983          |
|   |                     | JP1286068C C               | 09-10-1985          |
|   |                     | KR9106994 B1               | 14-09-1991          |
|   |                     | US4491619 A                | 01-01-1985          |
| CA2400854                                 | 30-08-2001          | AU3564601 A                | 03-09-2001          |
|   |                     | BR0108614 A                | 07-01-2003          |
|   |                     | CA2400854 A1               | 30-08-2001          |
|   |                     | CN1404529 A                | 19-03-2003          |
|   |                     | CZ20022853 A3              | 12-02-2003          |
|   |                     | EP1257674 A1               | 20-11-2002          |
|   |                     | FR2805281 A1               | 24-08-2001          |
|   |                     | JP2003524070T T            | 12-08-2003          |
|   |                     | US2003010156 A1            | 16-01-2003          |
|   |                     | WO0162991 A1               | 30-08-2001          |

*Continued on supplemental page*

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/002147*Continued from patent family annex*

| Patent Document<br>Cited in Search Report | Publication<br>Date | Patent Family<br>Member(s) | Publication<br>Date |
|---|---------------------|----------------------------|---------------------|
| CA2228562                                 | 20-02-1997          | AT181096T T                | 15-06-1999          |
|   |                     | AU6704696 A                | 05-03-1997          |
|   |                     | CA2228562 A1               | 20-02-1997          |
|   |                     | DE69602850D D1             | 15-07-1999          |
|   |                     | DE69602850T T2             | 09-12-1999          |
|   |                     | DK853648T T3               | 13-12-1999          |
|   |                     | EP0853648 A1               | 22-07-1998          |
|   |                     | ES2133984T T3              | 16-09-1999          |
|   |                     | FR2737503 A1               | 07-02-1997          |
|   |                     | GR3031155T T3              | 31-12-1999          |
|   |                     | JP2002502435T T            | 22-01-2002          |
|   |                     | TW400365 B                 | 01-08-2000          |
|   |                     | US6022406 A                | 08-02-2000          |
|   |                     | WO9706215 A1               | 20-02-1997          |
|   |                     | ZA9606474 A                | 19-02-1997          |